

IN THE SPECIFICATION:

Amend the specification as follows:

(Page 4, line 3 to page 5, line 1): These separation methods are presently believed to be the suitable separation method in  $\mu$ TAS from the following points: (1) a rapid separation can be expected at a low applied voltage without requiring a high voltage as in capillary electrophoresis, since an electric field and its gradient can be increased to an extreme ~~extend~~ extent if micromachined electrodes are employed, because the degree of dielectrophoretic forces depends on the size and dielectric properties of substances (particles) and is proportional to the electric field gradient; (2) an increase in temperature due to applying the electric field can be minimized, since a strong electric field area is localized at a significantly small region, and a high electric field can be formed; (3) as the dielectrophoretic force is a force proportional to the electric field gradient, the force is understood as independent on the polarity of the applied voltage, and thus works under an AC electric field in a similar way to a D.C. electric field, and therefore if a high frequency A.C is employed, an electrode reaction (electrolytic reaction) in an aqueous solution can be suppressed, so that the electrodes themselves can be integrated in the channel (sample flow path); (4) improvement in a detection sensitivity can be expected, since there is no restriction to a chamber volume of the detection component unlike the capillary electrophoresis, and the like.

(Page 12, lines 14-19): It is a further object of the present invention to provide, in an apparatus for enhancing the collecting ability of substances in which a liquid containing substances to be separated is present within a non-uniform electric field formed by a dielectrophoretic electrode to separate the substances by the dielectrophoretic force exerting on the substrate. [[,]]

(Page 17, lines 11 to 23): ~~FIG. 6 is a~~ FIGS. 6A and 6B are plan view showing an example views showing examples of a conventional electrode.

~~FIG. 7 is a~~ FIGS. 7A and 7B are plan view showing a further example views showing further examples of a conventional electrode.

~~FIG. 8 is a~~ FIGS. 8A and 8B are plan view showing another example views showing other examples of a conventional electrode.

~~FIG. 9 is a~~ FIGS. 9A and 9B are plan view showing still another example views showing still other examples of a conventional electrode.

~~FIG. 10 is a~~ FIGS. 10A and 10B are plan view showing another example views showing other examples of a conventional electrode.

~~FIG. 11 is a~~ FIGS. 11A through 11G are plan view showing still another example views showing still other examples of a conventional electrode.

(Page 18, lines 12-13): ~~FIG. 16 is a~~ FIGS. 16A through 16E are plan view showing an electrode views showing electrodes used in the present invention.

(Page 65, lines 2-22): To provide An electrode for a dielectrophoretic apparatus in which a background detected by reflecting an excited light on an electrode present under the substance (molecule) is reduced and an S/N ratio is enhanced. Also, there is provided an dielectrophoretic apparatus, in an apparatus in which a liquid containing substances to be separated is present in a non-uniform electric field formed by a dielectrophoretic electrode, and separation is carried out by a dielectrophoretic force exerting on the substances, wherein the collecting ability of substances is enhanced. The present invention is characterized in that a vacant space is provided in an electrode whereby substances subjected to influence by a negative dielectrophoretic force can be concentrated in said vacant space of an electrode, or above or below portion of the space.

~~—— The present invention is further characterized in that in a dielectrophoretic apparatus provided with an electrode on a base plate, a lower level place than the electrode level is formed between (or among) the electrodes to realize an increase of a non-uniform electric field region, thereby enhancing the collecting ability.~~